AMENDMENTS TO THE SPECIFICATION:

Please insert the following new paragraph on page 1, prior to paragraph **[0001]**:

--This application is a continuation application of U.S. Patent Application Serial No. 10/113,690, filed April 2, 2002, the subject matter of which is incorporated herein by reference.--

Please replace paragraph [0015] as follows:

[0015] In a data transmission system including a station which transmits M encoded data streams using M antennas to a terminal and a station controller which controls the station, wherein M is an integer at least equal to 2, a terminal in accordance to the invention includes at least one radio transceiver including P radio receivers and at least one transmitter with P being an integer at least equal to 2, each radio receiver including an antenna which receives the M encoded data streams and a detecting function which decodes the M encoded data streams into decoded data; and a terminal controller which controls the at least one radio transceiver; and wherein in response to a transmission from the station that the terminal is to operate at least one of the radio receivers in at least one frequency band not used to receive the M encoded data streams during at least one identified data frame therein to measure a radio indicator of the at least one frequency band, the terminal controller causes at least one of the radio receivers to be ~~turned~~ tuned to the at least one frequency band not used to receive the M encoded data streams during the at least one identified data frame and to make measurements therein and to transmit the measurements with the at least one transmitter of the at least one

radio transceiver to the station. The at least one frequency band may be an inter-frequency band in the data transmission system or in another system than the data transmission system. The station may comprise a demultiplexer which demultiplexes an input data stream into M substreams, each substream may be spread with one of N spreading codes where N is an integer at least equal to 2 with a mutually orthogonal pilot symbol being added to a common pilot channel transmitted by each antenna; and wherein the at least one transceiver may comprise in each radio receiver a despreader coupled to the antenna, a space-time rake combiner which receives outputs from the despreaders, a channel estimation function coupled to each of the antennas of the radio receivers which provides a channel estimation to the space-time rake combiner, a detector is coupled to outputs of the space-time rake combiner which provides outputs of the M data streams, and a multiplexer, coupled to the outputs of the detector which outputs a multiplexed data stream corresponding to the input data stream. The terminal may use wide band code division multiple access (WCDMA) for receiving the M encoded streams, global system for mobile communications (GSM) for receiving the M encoded data streams, or the terminal may use wide band code division multiple access (WCDMA) for receiving the M encoded data streams and another system may use global system for mobile communications (GSM). The terminal may use global system for mobile communications (GSM) for receiving the M encoded data streams and the another system may use wide band code division multiple access (WCDMA). The radio indicator may be pilot signal power, total received signal power, Ec/10, or cell identification.

Please replace paragraph [0017] as follows:

[0017] In a data transmission system including a station which transmits M encoded data streams using M antennas to a terminal comprising at least one radio transceiver including P radio receivers and at least one transmitter with P being an integer at least equal to 2, each radio receiver including an antenna which receives the M encoded data streams and a detecting function which decodes the M encoded data streams into decoded data, a station controller which controls the station, wherein M is an integer at least equal to 2, and a terminal controller which controls the that at least one radio transceiver, a method in accordance with the invention includes in response to a transmission from the station that the terminal is to operate at least one of the radio receivers in at least one frequency band not used to receive the M encoded data streams during at least one identified data frame therein to measure a radio indicator of the at least one frequency band not used to receive the M encoded data streams, the terminal controller causes at least one of the radio receivers to be ~~turned~~ tuned to the at least one frequency band during the at least one identified data frame and to make measurements therein and to transmit the measurements with the at least one transmitter of the at least one radio transceiver to the station. The at least one frequency band may be an inter-frequency band in the data transmission system or another system than the data transmission system. The station may comprise a demultiplexer which demultiplexes an input data stream into M substreams, each substream may be spread with one of N spreading codes where N is an integer at least equal to 2 with a mutually orthogonal pilot symbol being added to a common pilot channel transmitted by each antenna; and wherein the at least one transceiver may comprise

in each radio receiver a despreader coupled to the antenna, a space-time rake combiner which receives outputs from the despreaders, a channel estimation function coupled to each of the antennas of the radio receivers which provides a channel estimation to the space-time rake combiner, a detector is coupled to outputs of the space-time rake combiner which provides outputs of the M data streams, and a multiplexer, coupled to the outputs of the detector which outputs a multiplexed data stream corresponding to the input data stream. The station may comprise a demultiplexer which demultiplexes an input data stream into M substreams, each substream may be spread with one of N spreading codes where N is an integer at least equal to 2 with a mutually orthogonal pilot symbol being added to a common pilot channel transmitted by each antenna; and wherein the at least one transceiver may comprise in each radio receiver a despreader coupled to the antenna, a space-time rake combiner which receives outputs from the despreaders, a channel estimation function coupled to each of the antennas of the radio receivers which provides a channel estimation to the space-time rake combiner, a detector is coupled to outputs of the space-time rake combiner which provides outputs of the M data streams, and a multiplexer, coupled to the outputs of the detector which outputs a multiplexed data stream corresponding to the input data stream. The terminal may use wide band code division multiple access (WCDMA) for receiving the M encoded streams the terminal uses global system for mobile communications (GSM) for receiving the M encoded data streams. The terminal may use wide band code division multiple access (WCDMA) for receiving the M encoded data streams and the another system may use global system for mobile communications (GSM). The terminal may use global system for mobile communications (GSM) for receiving the

M encoded data streams and the another system may use wide band code division multiple access (WCDMA). The radio indicator may be pilot signal power, total received signal power, Ec/10, or cell identification. The M encoded data streams may be transmitted with a higher power level during the at least one identified frame than a power level used to transmit other frames of the encoded data streams.

Please replace paragraph [0025] of the specification as follows:

[0025] The making of measurements to determine if an inter-frequency or inter-system hand-over should occur is represented by point 100. Operation proceeds to point 102 where the BSC/RNC 14 causes a message to be transmitted on the downlink control channel identifying at least one frame which will be transmitted when the transmitter 21 of transceiver 24 and the receivers 20 of the UE 20' are to be operating in non-MIMO mode to make inter-frequency or inter-system radio indicator measurements. The operation proceeds to point 104 where the terminal controller 18 causes storing of the identification of the frame(s) which will be sent in non-MIMO mode, as illustrated as an example only as the single frame #2 in Fig. 3. The controller starts to monitor the numbers of received frames to determine when to tune one MIMO receiver 20 to a new frequency band which is either an inter-frequency band within the same system or a frequency band within another system in order to make measurements of a radio indicator in the new frequency band. It should be understood that the radio indicator may be any reliable measurement criteria for determining whether a hand-over should be made to a new frequency band either on an inter-frequency basis or an inter-system basis. Such radio indicators without limitation are pilot signal power, total received signal power, ~~EC/10~~

Ec/10 or cell identification to name just a few, but it should be understood that the invention is not limited thereto. Ec is equal to pilot RSCP divided by RSSI wherein RSCP is received signal code power and RSSI is received signal strength indicator. The operation proceeds to point 106 where the transmitter 21 transmits the identified frame(s) with increased power while disabling one of the antennas 25 and one of the receivers 20 of the UE 20' is tuned to the new frequency band(s) to make and store the aforementioned measurements of the radio indicator and the remaining receiver(s) 20 is operated to detect the identified frames and output data from the multiplexer 48 while the aforementioned measurements are being made. The process proceeds finally to point 108 where the measurements are transmitted from the transmitter 16 of the UE 20' to the transceiver 24 and the BSC/RNC 14 decides if a hand-over to a new inter-frequency band or a new system is in order.